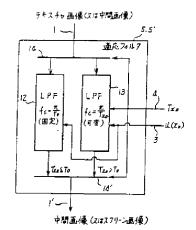(54) **METHOD AND DEVICE FOR IMAGE TRANSFORMATION**

(57) Abstract:

PURPOSE: To easily execute strict consideration based upon a sampling principle by adaptively executing the interpolation filtering processing and thinning filtering processing of input discrete data in both of two processing processes.

CONSTITUTION: Processing for finding out respective grating point data on an intermediate image can be executed by resampling texture data by using the grating point interval between respective grating points on the intermediate image reversely formed on an one-dimensional texture data. Thereby, the consideration of folding distortion based upon the sampling principle can be attained in each grating point on the intermediate image. Thereby, when an ideal low pass filter (LPF) whose amplitude is '1' when cut-off frequency is $\leq fc$, ideally '0' in the case of the cut-off frequency $\leq fc$, is used as the LPFs 12, 13 to be used for interpolation or thinning, interpolation processing or thinning processing logically including no distortion can be considered. Thus, extremely accurate interpolation or thinning can be attained by using ideal LPFs as the LPFs 12, 13.